



QUEEN'S  
SPACE  
ENGINEERING  
TEAM



# Sponsorship Package

2023-2024



# Who We Are

The Queen's Space Engineering Team (QSET) is an interdisciplinary design team led by undergraduate students. Comprising around 200 passionate members, QSET focuses on the applications of robotics and technology in space-related industries.

Established in 2006, QSET actively participates in prestigious competitions such as the University Rover Challenge—a yearly international robotics competition for prototype Mars Rovers—and the Canadian Satellite Design Challenge—a national biennial competition for low-earth orbit, 3U CubeSats.

Throughout its existence, the team has consistently pursued new avenues, exemplified by the creation of the Queen's Space Conference in 2012—the first undergraduate space conference in Canada. Additionally, QSET expanded its design focus to include a novel scientific payload, which was successfully launched onboard a high-altitude balloon during the Canadian Stratospheric Balloon Experiment in 2021.

By seizing these opportunities, QSET members acquire transferable skills that are highly valued in the industry. This team aims to offer students the opportunity to learn how to successfully design, research, and implement solutions to various open-ended problems related to space technology.



# Our Mission

## ***Develop Industry-Transferable Skill Sets***

QSET has committed itself to developing industry-transferable skill sets through its continued participation in various competitions. Key graduate attributes highlighted by the Canadian Engineering Accreditation Board are addressed through the research, design, integration, and management roles offered to members of the team. Professional development happens through reports, presentations, conferences, and industry networking throughout the competition cycle.

## ***Maintain Competition Standing***

QSET represents Queen's at the national (Canadian Satellite Design Challenge, CAN-SBX) and international (University Rover Challenge) level. The team strives to produce innovative work that maintains its competitive standings of first in Canada.

## ***Support Educational Outreach Initiatives***

QSET works with diverse outreach organizations in the local community, recognizing the impact of motivating pre-university students to pursue STEM. These initiatives allow the team to increase interest in robotics and aerospace, raise awareness about current projects, and meet competition requirements.

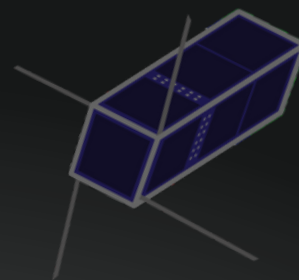
## ***Provide Equitable Access to Engineering Education***

QSET seeks to provide equitable access to design projects through onboarding strategies, which reduce barriers to entry. Members are provided equal access to learning opportunities, accommodations, and reporting systems, as needed.

# Community Relations

QSET has maintained an active presence through participating in a variety of in-person and virtual events, which increased team exposure. QSET's outreach activities have been involved with the following events and organizations:

- NATO Pitch Day
- SEDS Ascension Conference
- Connections Engineering Outreach
- Science Rendezvous Kingston
- Women in Science and Engineering (WiSE)
- Queen's Space Conference
- TedX Queen's

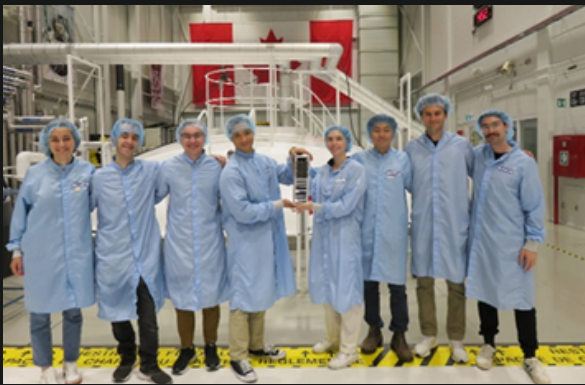


# Highlights 2022-2023



## University Rover Challenge (URC)

The Rover Team competed in the annual University Rover Challenge final in 2023. The team is proud to have finished **first in Canada**, and seventh among the 37 teams that had qualified for the competition, and 104 initial applicants **representing 15 countries**. This is a tremendous accomplishment for the team, which faced significant design space restrictions until the 2022 winter term.



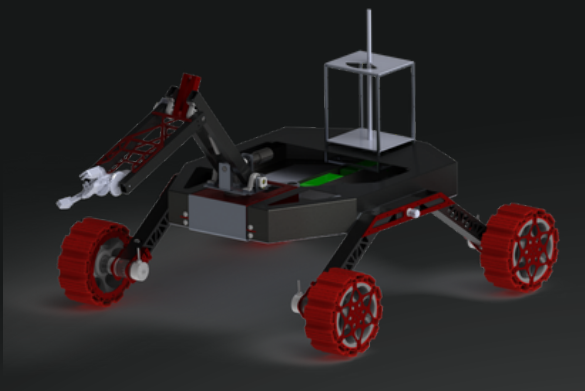
## Canadian Satellite Design Challenge (CSDC)

The Satellite Team was selected as one of eight teams participating in CSDC in 2021-2023 at the David Florida Laboratory. The team achieved **third place**. The purpose of the tests in this competition was to demonstrate the satellite's structural integrity against the forces experienced during a rocket launch.



## Outreach and Education Award

QSET was awarded the **Outreach and Education award** during the CSDC 2021-2023 design cycle for its impact on communities around it. This award is given to teams who motivate and inspire students to pursue science and engineering education, highlight the benefits and importance of satellites and space for Canadians, and increase public awareness and interest in the applications of satellite missions.



## Queen's Design Team Showcase

QSET placed first at the Queen's Design Team Showcase in 2022 and third in 2023, based on creativity, design quality, and professional development opportunities.



# History

## 2023

### UNIVERSITY ROVER CHALLENGE (URC)

QSET places 1st in Canada and 7th overall among many strong competitors.

### CANADIAN SATELLITE DESIGN CHALLENGE (CSDC)

QSET's Satellite team placed 3rd among the 8 teams. They also receive an award for outstanding outreach and education.

## 2022

### UNIVERSITY ROVER CHALLENGE (URC)

QSET placed 3rd in Canada and 18th overall.

## 2021

### UNIVERSITY ROVER CHALLENGE (URC)

QSET's rover was accepted; however, the competition was cancelled due to COVID-19.

### CANADIAN STRATOSPHERIC BALLOON CHALLENGE (CAN-SBX)

QSET launches the Horizon CAN-SBX scientific weather balloon payload in partnership with SEDS-Canada and the CSA.

## 2020

### UNIVERSITY ROVER CHALLENGE (URC)

QSET's rover was accepted; however, the competition was cancelled due to COVID-19.

### CANADIAN SATELLITE DESIGN CHALLENGE (CSDC)

The competition was postponed until 2021.

## 2019

### UNIVERSITY ROVER CHALLENGE (URC)

QSET places 2nd in Canada and 15th out of 84 teams.

## 2018

### UNIVERSITY ROVER CHALLENGE (URC)

QSET places 2nd in Canada and 12th overall.

### CSDC

QSET finishes its first 3U CubeSat and completes launch qualifications at the CSA.

### 5TH MISSION IDEA CONTEST

QSET presents its CubeSat at the 6th annual UNISEC Global Conference at the International Space University.

## 2017

### UNIVERSITY ROVER CHALLENGE (URC)

QSET maintains its 1st place Canadian standing, placing 6th out of 82 teams.

### CANADIAN SATELLITE DESIGN CHALLENGE (CSDC)

QSET begins its first 3U CubeSat — on a two-year design cycle.

## 2016

### UNIVERSITY ROVER CHALLENGE (URC)

QSET becomes the #1 team in Canada and places 2nd in North America, placing 6th out of 63 teams

### EUROPEAN ROVER CHALLENGE (ERC)

QSET places 8th out of 22 finalist teams in Poland.

### CANADIAN SATELLITE DESIGN CHALLENGE (CSDC)

QSET creates a new design team with the objective to compete at the Canadian Satellite Design Challenge.

## 2015

### UNIVERSITY ROVER CHALLENGE (URC)

QSET's new mars Rover improves its standing, placing 16th out of 44 competing teams.

## 2014

### UNIVERSITY ROVER CHALLENGE (URC)

QSET places 13th out of 31 teams in our first ever URC competition.

## 2013

### NASA LUNABOTICS

QSET builds a lunar mining rover for the NASA Lunabotics competition.

## 2012

### QUEEN'S SPACE CONFERENCE (QSC)

QSET founds QSC, the first undergraduate conference on space in Ontario.

## 2010

### INT'L CANSAT COMPETITION

QSET places 2nd for its rocket payload design.

## 2006

### SPACE ELEVATOR COMPETITION

QSET was founded.

# Why Sponsor QSET?

QSET is actively seeking financial and in-kind donations to support its design milestones and participation in outreach opportunities throughout the 2023-2024 design cycle. By contributing, donors will play a crucial role in enabling students to engage in a uniquely interdisciplinary project and contribute to the community through workshops, presentations, and exhibitions.

To maintain its competitive standing and uphold its strong community presence, QSET relies on sponsorship and funding opportunities. These vital resources allow the team to represent Canada on an international stage while supporting its operational needs and design goals.

**Throughout its 17 years of operation, QSET has developed an extensive outreach network, which has reached thousands of members of the public, and promoted STEM education and engineering collaboration in several areas:**

**LOCALLY IN KINGSTON** by participating in community and university-run showcases, and by running workshops with elementary and secondary school students.

**NATIONALLY ACROSS CANADA** through presentations at conferences and participation in Canadian space institutions.

**INTERNATIONALLY REPRESENTING CANADA** in knowledge-sharing events such as UNISEC-Global, and through national and international competitions, which display the team's technical achievements.



# Sponsorship Breakdown

Join QSET as a valued sponsor and unlock the potential for a meaningful and fruitful partnership that aligns with your organization's vision and objectives. Together, we can amplify your brand visibility, provide access to exceptional talent, and contribute to the exciting world of space exploration and technological innovation.

## Visibility

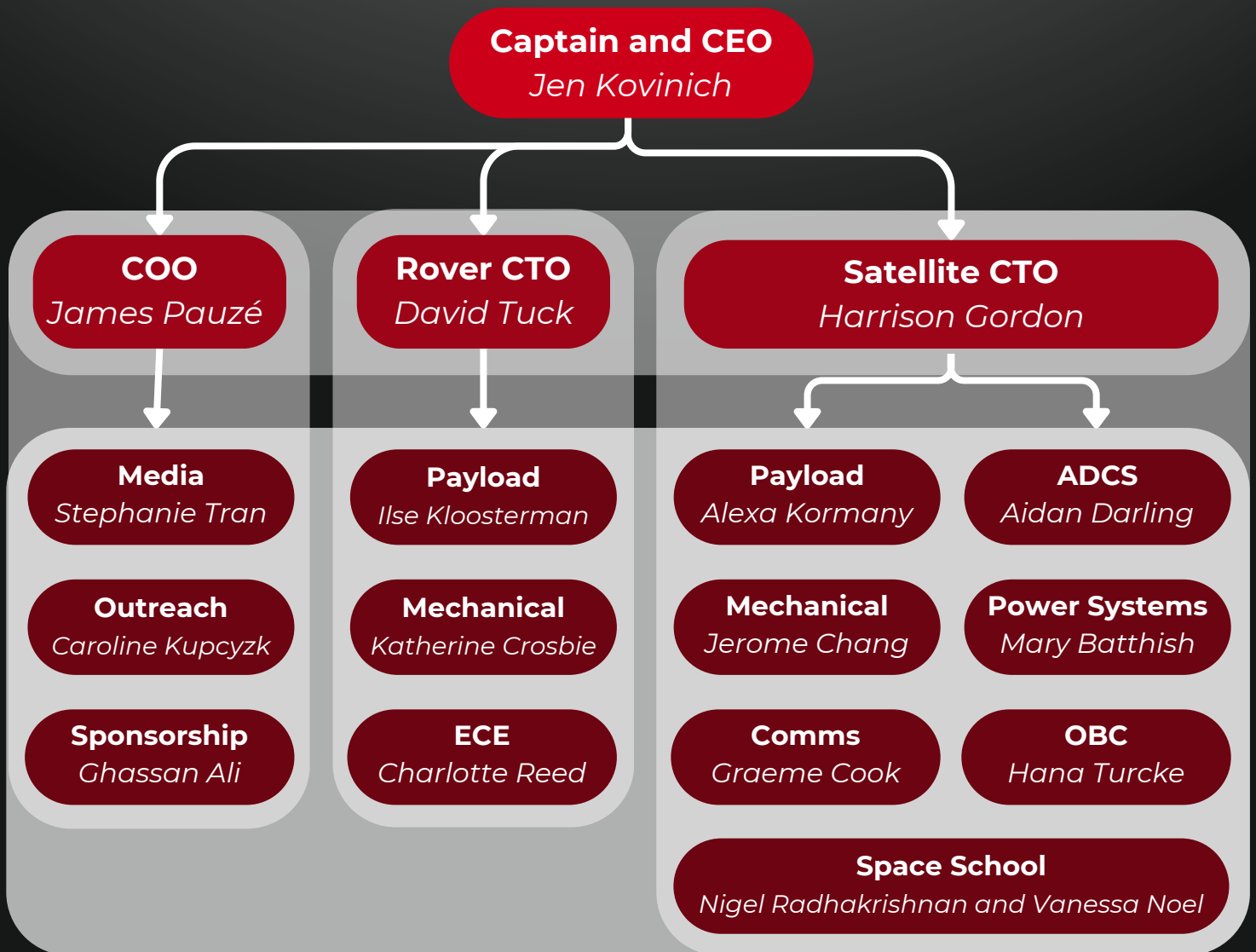
Ranking in 1st place in Canada during the University Rover Challenge, QSET has gained significant public visibility through its competitions, alumni network, social media presence, and outreach work.

## Access to Talent

QSET's exceptional talent pool also serves as a remarkable hiring pipeline. This direct connection to our accomplished students ensures a seamless transition from their academic endeavors to professional opportunities within your industry.

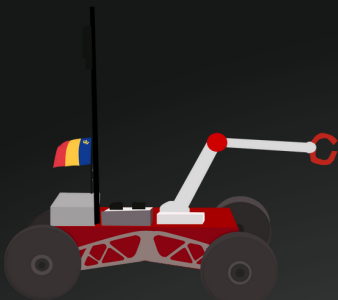
TIERS	BRONZE	SILVER	GOLD	PLATINUM
	<\$1,000	\$1,000-\$4,999	\$5,000-\$9,999	\$10,000+
Team Updates	●	●	●	●
Logo on QSET Website	●	●	●	●
Feature on Social Media		●	●	●
Feature in Events and Presentations		●	●	●
Access to Member Directory			●	●
Logo on Competition Apparel			●	●
Logo on Rover and/or Satellite				●

# Contact Us



QSET's Sponsorship Manager can be reached at [qset.sponsorship@engsoc.queensu.ca](mailto:qset.sponsorship@engsoc.queensu.ca) should you have any questions or concerns, including sub-team-specific inquiries.

Thank you for your consideration, and we look forward to hearing from you!



<https://qset.ca>



@qset



Queen's Space  
Engineering Team



@qset9182